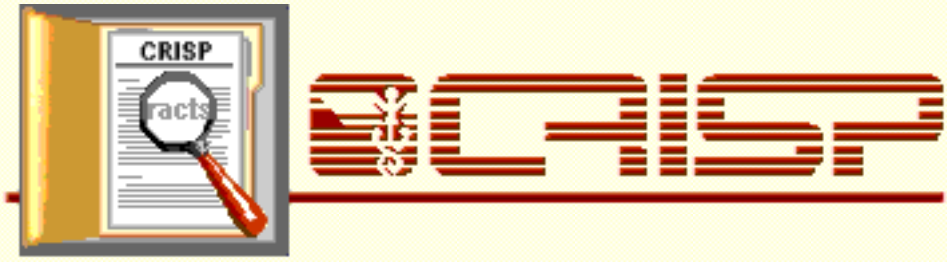

Abstract

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PI Name: SCHUTTE, DEBRA L.
PI Title:
Project Title: COGNITION, FUNCTION AND GENOTYPE IN ALZHEIMER'S DISEASE

Abstract: Alzheimer's disease (AD), an adult-onset, neurodegenerative disorder, affects more than 4 million Americans and their families. AD is characterized by uncertainty in the rate of disease progression as well as its cognitive and functional manifestations, hindering the ability of nurses to predict resource use and specify interventions. Uncertainty may also contribute to professional and family caregiver stress. Recent research demonstrates an association between apolipoprotein E (APOE) genotype and AD as well as a potential APOE modifying effect by the alpha1-antichymotrypsin (ACT) gene, providing biological markers with potential utility in AD diagnosis and prognosis. Further research is needed to understand the association between APOE gene status and potential modifier genes, age of onset, disease progression, and patterns of cognitive and functional impairment, as a means of reducing uncertainty for the individuals with AD, their families, and professional caregivers. This study proposes the collection of family history, APOE genotype, and ACT genotype data to be linked with two existing nursing research databases containing repeated measures of cognitive, non-cognitive, and functional status for subjects with AD: the Family Involvement in Care (FIC) dataset and the Progressively Lowered Stress Threshold (PLST) dataset. The purposes of this study are to: 1) describe the distribution of APOE and ACT allele frequencies among people with AD and compare to known allele frequencies in the general population, and 2) analyze the relationship between APOE and ACT genotypes and age of onset, rate of cognitive and functional decline, and profiles of cognitive, non-cognitive, and functional manifestations in AD.

Thesaurus Terms:
Alzheimer's disease, apolipoprotein E, cognition, functional ability, gene expression, genotype
age difference, chymotrypsin inhibitor, disease /disorder onset, family genetics, gene frequency
clinical research, human subject

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